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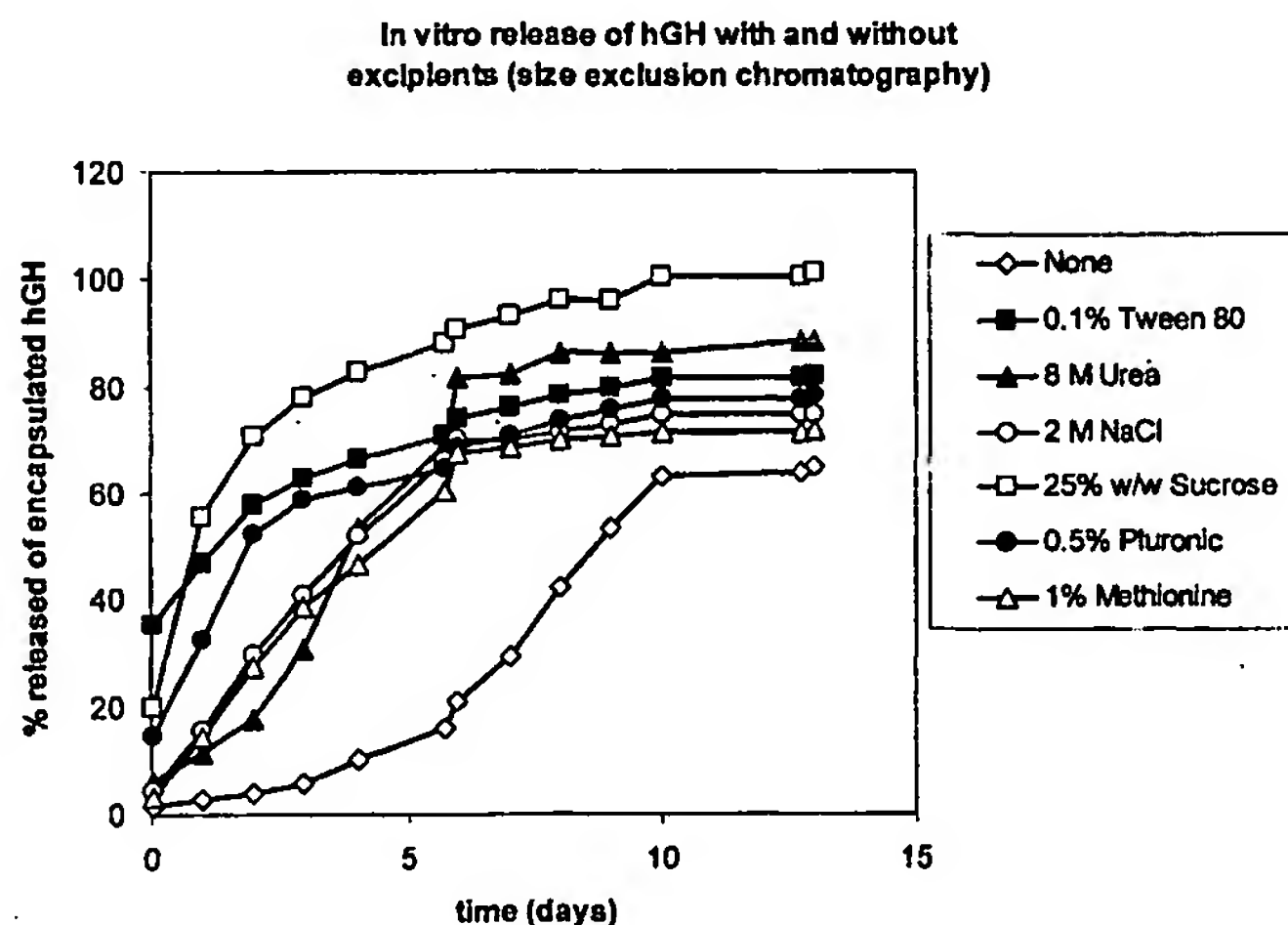
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(54) Title: HYDROGEL MICROSPHERES WITH IMPROVED RELEASE PROFILE



(57) Abstract: The invention provides an emulsion-based method for the preparation of controlled release microspheres for the delivery of active compounds. The method comprises the preparation of an emulsion comprising an aqueous dispersed phase which comprises a polymer capable of forming a hydrogel, a bioactive protein, and water, and which is substantially free from insoluble aggregates of the bioactive protein. Subsequently, the polymer physically or chemically crosslinked to form a hydrogel. The invention further provides active protein-loaded hydrogel microspheres which are prepared by the process, and which are substantially free from insoluble aggregates of the active protein. The microspheres exhibit controlled release, with release profiles which are considerably improved over those of previously known hydrogel microspheres. The microspheres may be used to deliver therapeutic or diagnostic proteins by injection.

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